

## **REMARKS**

Applicant has carefully studied the final action and submits the foregoing new claims, together with a Request for Continued Examination. The new claims are believed to substantively differ from the previous claims, and to address the examiner's concerns. Applicant submits that the new claims are in condition for allowance for all of the following reasons.

### **Previous Rejection of claims 12-41 as obvious over Berlowitz**

The examiner rejected previous claims 12-41 as obvious over U.S. Patent No. 6,663,767 to Berlowitz, ("Berlowitz"). The examiner contended that the Fischer-Tropsch derived distillate described in Berlowitz met the limitations of the Fischer-Tropsch derived gas oil of the claims. The examiner admitted that Berlowitz "does not disclose a method of reducing combustion related deposits in a diesel engine," but contended that:

This is not deemed to be persuasive because the method of independent claim 12 comprises the step of 'introducing into a combustion chamber of the diesel engine a fuel blend comprising' which is clearly taught by Berlowitz as set forth above. Further, the preamble language in independent claims 12 and 24 'of reducing combustion related deposits in a diesel engine' is not accorded any patentable weight since the method of adding a diesel fuel blend containing a Fischer-Tropsch derived fuel to a diesel engine is taught by the prior art.

Office action, p. 3. The examiner continues, stating that:

Although reducing engine deposits is not specifically set forth in Berlowitz, reduction of particulate matter is briefly discussed in column 7, lines 37-40, and it has been held that the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer.

Office action, pp. 3-4.

### **Response**

New claim 43 specifies "providing a fouled diesel engine comprising an initial level of injector fouling, as evidenced in the laboratory by an initial fouling index" and "removing at least some of the initial level of injector fouling, producing a cleaned diesel engine having a reduced level of injector fouling, as evidenced during laboratory testing by a reduced fouling

index.” Claim 43 also specifies that “the removing compris[es] combusting in the diesel engine a fuel blend comprising a sufficient amount of Fischer-Tropsch derived gas oil to produce the cleaned diesel engine.” The examiner has not pointed to a teaching, suggestion, or other motivation in Berlowitz or elsewhere to perform the method of claim 43, and has not established an apparent reason to combine Berlowitz with any other reference or identified any other motivation to modify Berlowitz in the fashion of claim 43.

New claim 50 specifies “providing a fouled diesel engine comprising an initial level of injector fouling, as evidenced in the laboratory by an initial fouling index” and “removing at least some of the initial level of injector fouling, thereby producing a cleaned diesel engine having a reduced level of injector fouling, as evidenced in the laboratory by a reduced fouling index.” New claim 50 also specifies that “the removing comprising combusting in the diesel engine a fuel blend effective to produce the cleaned diesel engine, the fuel blend comprising a standard diesel fuel composition comprising less than 1 %w/w Fischer-Tropsch derived gas oil and an amount of 0.5 % w/w or more Fischer-Tropsch derived gas oil.” The examiner has not pointed to a teaching, suggestion, or other motivation in Berlowitz or elsewhere to perform the method of claim 50, and has not established an apparent reason to combine Berlowitz with any other reference or identified any other motivation to modify Berlowitz in the fashion of claim 50.

New claim 59 provides a method for reducing injector fouling in a diesel engine, the method comprising “providing a diesel engine exhibiting an initial level of injector fouling, as evidenced in the laboratory by an initial fouling index” and “operating the diesel engine using a fuel blend comprising a sufficient amount of Fischer-Tropsch derived gas oil to maintain or reduce the initial level of injector fouling.” The examiner has not pointed to a teaching, suggestion, or other motivation in Berlowitz or elsewhere to perform the method of claim 59, and has not established an apparent reason to combine Berlowitz with any other reference or identified any other motivation to modify Berlowitz in the fashion of claim 59.

Claim 70 specifies that “the diesel engine running on the standard diesel fuel composition produc[es] a first quantity of engine fouling, as evidenced in the laboratory by an initial fouling index, and the diesel engine running on the fuel blend produc[es] a reduced quantity of engine fouling, as evidenced in the laboratory by a reduced fouling index.” The examiner has not pointed to a teaching, suggestion, or other motivation in Berlowitz or elsewhere to perform the

method of claim 70, and has not established an apparent reason to combine Berlowitz with any other reference or identified any other motivation to modify Berlowitz in the fashion of claim 70.

Claim 78 specifies

operating a diesel engine using a standard diesel fuel composition comprising less than 1 w/w% Fischer-Tropsch derived gas oil, producing engine fouling comprising a quantity of combustion related deposits, as evidenced in the laboratory by an initial fouling index; and,

thereafter operating the diesel engine using a fuel blend comprising an amount of the Fischer-Tropsch derived gas oil sufficient to reduce the quantity of combustion related deposits, as evidenced in the laboratory by a reduced fouling index, the Fischer-Tropsch derived gas oil comprising 95% w/w or greater components having boiling points of from about 150 to about 400°C.

The examiner has not pointed to a teaching, suggestion, or other motivation in Berlowitz or elsewhere to perform the method of claim 78, and has not established an apparent reason to combine Berlowitz with any other reference or identified any other motivation to modify Berlowitz in the fashion of claim 78.

The examiner certainly has not pointed to a teaching, suggestion, or other motivation in Berlowitz or elsewhere to “increas[e] the removal of the initial level of injector fouling by increasing the amount of the Fischer-Tropsch derived gas oil in the fuel blend, the increase in removal being evidenced in the laboratory by a more reduced fouling index.” Claims 45-46. See also claims 51, 60, 76-77, 84-85. Nor has the examiner pointed to a teaching, suggestion, or other motivation to “increas[e] the removal of the initial level injector fouling by providing the fuel blend with a sufficient quantity of detergent to produce a further reduced fouling index during laboratory testing.” Claims 46-47. See also claims 52-53, 61-62, 73-75, and 81-83. The examiner also has not established an apparent reason to combine Berlowitz with any other reference and has not identified any other motivation to modify Berlowitz in the fashion of the dependent claims.

Applicant respectfully requests allowance of new claims 43-85 over Berlowitz.

## **CONCLUSION**

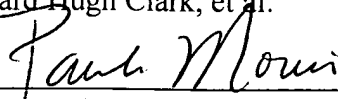
For the foregoing reasons, Applicant respectfully requests an extension of time to respond to the final action, entry of the Request for Continued Examination submitted herewith together with the new claims, and consideration and allowance of the new claims. The

Commissioner is hereby authorized to charge any fee in connection with this paper to Deposit Account No. 19-1800 (File no. TS7607), maintained by Shell Oil Company

Respectfully submitted,

Richard Hugh Clark, et al.

By

  
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